BY ORDER OF THE COMMANDER
AIR FORCE MATERIEL COMMAND

AIR FORCE INSTRUCTION 91-102

AIR FORCE MATERIEL COMMAND
Supplement 1

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Safety

NUCLEAR WEAPON SYSTEM SAFETY STUDIES, OPERATIONAL SAFETY REVIEWS, AND SAFETY RULES

HOLDOVER

The basic publication has been revised; impact on supplemental information is under review by the OPR. Users should follow supplemental information that remain unaffected.

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the HQ AFMC WWW site at: https://www.afmc-mil.wpafb.af.mil/pdl/pubs.htm

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This supplement applies to all AFMC organizations and Air Force associate units with safety staffs and personnel located on AFMC and non-AFMC installations. Send suggested changes to this supplement to the Weapons Safety Division, HQ AFMC/SEW, 4375 Chidlaw Rd., Suite 6, Wright-Patterson AFB OH 45433-5006. This supplement does not apply to the Air National Guard or US Air Force Reserve units and members.

AFI 91-102, 6 April 1994, is supplemented as follows:

3.1. DoD policy is to design, maintain, transport, store, and operate nuclear weapons and/or nuclear weapon systems in a manner that ensures safety and security (surety) are maintained. The tool to evaluate and determine if safety and security are maintained is the nuclear weapon system safety group (NWWSG). The NWSSG is an independent body which is separate from the design agencies that determine the adequacy of the nuclear weapon system to be operated in a safe manner. The product of the NWSSG is nuclear weapon system safety rules (WSSR) which are ultimately approved for use by the Secretary of Defense (SECDEF). The WSSR's are procedural safeguards that ensure nuclear weapon safety standards are met while providing the maximum surety consistent with operational requirements. The goal is to create and maintain a balance that begins with the design, development phase and continues until retirement of the system.

3.1. First Bullet. HQ AFMC/SEW provides nuclear surety policy and oversight for NWSSG activities involving weapon systems acquired and sustained by program executive officer programs and AFMC

organizations. SA-ALC/NWI is the technical and functional focal point for NWSSG studies. AFSA/SEWN hosts and arranges studies, including field trips, with the support of SA-ALC/NWI.

4.1. The delivery vehicle, equipment, software, and procedures are usually evaluated by the NWSSG when they are studied as a nuclear weapon system. When they are separately or individually evaluated, nuclear safety certification is accomplished according to AFI 91-103, *Air Force Nuclear Safety Certification Program* (formerly AFR 122-3). When individually evaluated due to modifications, new capability, etc., nuclear surety evaluation is accomplished by the agency with program management and the independent review is accomplished by SA-ALC/NWI.

4.3. The NWSSG doesn't certify nuclear weapon systems but may make nuclear safety certification recommendations to the SECDEF.

5.1. Second Bullet. HQ AFMC/SEW provides permanent voting membership to the NWSSG. SA-ALC/NWI, Kirtland AFB, NM represents AFMC as the voting member to the NWSSG for studies.

5.3. Technical advisors participation is determined by HQ AFMC/SEW and/or its NWSSG voting member.

6.1. AFMC voting member is usually a civilian (GS-13 and above) with many years of nuclear weapon system experience, full understanding of agency's responsibilities, and has no direct responsibilities for program management of the nuclear weapon system being developed.

7.1. Forward visit requests for NWSSG proceedings to AFSA/SEWN, SA-ALC/NWI, and AFMC/SEW 15 days prior to study. Provide information listed in basic instruction.

11.1. SA-ALC/NWI will prepare the technical nuclear surety analysis (TNSA).

11.3. (NOTE). SA-ALC/NWI will prepare abbreviated TNSAs.

12.5. Copy or notification that the Operational Plan Data Document (OPPD) has been approved by USAF/XO should be forwarded to the developing agency by HQ USAF/XO or the operational MAJCOM. The OPPD facilitates the completion of the Nuclear Safety Analysis Report (NSAR), and is usually performed by a contractor. The developing agency must provide the OPDD to the contractor.

13.1.1. (Added). The NSAR is usually performed by the contractor. The NSAR is a primary source document to build the TNSA and describes the nuclear safety deficiencies, safety features, and compliance approaches to design requirements. The developing agency is responsible for developing the NSAR. The NSAR must be provided to SA-ALC/NWI for review and evaluation.

14.2. HQ AFMC/SEW will coordinate implementation actions of NWSSG recommendations with design agency. Status of actions on NWSSG recommendations will be provided to AFSA/SEWA and SA-ALC/NWI by HQ AFMC/SEW or design action agency.

22.1. Operational and technical procedures will be provided by design agency or organization that has program management responsibility for system/ component.

22.2.1.1. (Added). Evaluations will be conducted by design agency. Send copy of proposed modifications, procedural changes, tests, or other activities involving nuclear weapons to HQ AFMC/SEW.

22.2.1.2. (Added). If the modification, procedural change, test, or other activity does not require an NWSSG safety study, the evaluation will be conducted according to AFI 91-103, attachment 2, paragraph A2.4. Distribute the evaluations to HQ AFSA/SEWA and SA-ALC/NWI (the independent review

agency) according to AFI 91-103, paragraph 7. SA-ALC/NWI will conduct an independent review according to AFI 91-103, attachment 2, paragraph A2.5.

22.2.1.3. (Added). If an NWSSG safety study is required, the evaluation must be in the form of an NSAR. After NSAR is submitted to SA-ALC/NWI, further distr-ibution will be coordinated by SA-ALC/NWI. SA-ALC/NWI will perform a TNSA when required for the NWSSG safety study.

22.2.5. Send copy of requests to HQ AFMC/SEW and SA-ALC/NWI.

22.2.8. The design agency with program management responsibility for systems/component will provide the technical support and data needed to SA-ALC/NWI for TNSA or abbreviated TNSA preparation. Technical and management support, data, etc., will be also provided to the NWSSG safety study.

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Director of Safety